

Serial Number: BUR920010181US1

**IN THE CLAIMS**

Please amend claims 1, 2, 10, 13 and 17 as follows:

1. (Twice Amended) A programmable element, comprising:

a first device on a substrate having a first electrode and a first insulator disposed between the substrate and said first electrode, said first insulator having a first value of a given parameter;

a second gain device on a substrate having a second electrode and a second insulator disposed between the substrate and said second electrode  
wherein ~~said second insulator thickness is greater than the first insulator,~~  
and

said second insulator having a second value of said given parameter that is different from said first value;

wherein said first and second electrodes of said first and second devices are coupled to one another on a continuous layer; and

a source of programming energy coupled to said first device and causing it to permanently decrease in resistivity and not effecting the second device or the second insulator,

wherein a programmed state of said first device is indicated by a conductive state of said second device.

2. (Twice Amended) The programmable element of claim 1, wherein said given parameter is selected from the group consisting of density, thickness, and insulative value.

Serial Number: BUR920010181US1

3. (Original) The programmable element of claim 2, wherein said first insulator has a dielectric breakdown voltage that is less than that of said second insulator.

4. (Original) The programmable element of claim 3, wherein said first insulator is selected from the group consisting of silicon oxide, silicon nitride, silicon oxynitride, or combinations of two or more of silicon oxide, silicon nitride, and silicon oxynitride.

5. (Original) The programmable element of claim 3, wherein said first device further comprises a third electrode disposed on the substrate adjacent said insulator of said first device.

6. (Original) The programmable element of claim 5, wherein said third electrode comprises a diffusion region.

7. (Previously Amended) A programmable element, comprising:  
a first device on a substrate having a first electrode and a first insulator disposed between the substrate and said first electrode, said first insulator having a first value of a given parameter selected from the group consisting of density, thickness, and insulative value, that has a dielectric breakdown voltage that is less than that of a second insulator.

wherein said first device further comprises a second electrode having a diffusion region disposed on the substrate adjacent said insulator of said first device, and the first electrode has a plurality of separate conductive lines

Serial Number: BUR920010181US1

overlay the diffusion region;

a second device on a substrate having a third electrode and the second insulator disposed between the substrate and said third electrode, said second insulator having a second value of said given parameter that is different from said first value;  
wherein said first and third electrodes of said first and second devices are coupled to one another; and  
a source of programming energy coupled to said first device and causing it to permanently decrease in resistivity,  
wherein a programmed state of said first device is indicated by a conductive state of said second device.

8. (Original) The programmable element of claim 5, wherein said source of programming energy is coupled to said third electrode.

9. (Previously Amended) The programmable element of claim 6, wherein said source of programming energy comprises a voltage source.

10. (Amended) A programmable element, comprising:

a first device having a diode an antifuse on a substrate having a first electrode and a first insulator disposed between the substrate and said first electrode, said first insulator having a first value of a given parameter

BUR920010181US1

4

Serial Number: BUR920010181US1

selected from the group consisting of density, thickness, and insulative value;

a second device having an FET on a substrate having a second electrode and a second insulator disposed between the substrate and said second electrode, said second insulator having a second value of said given parameter that is different from said first value;

wherein said first and second electrodes of said first and second devices are coupled to one another; and

a source of programming energy coupled to said first device and causing it to permanently decrease in resistivity,

wherein a programmed state of said first device is indicated by a conductive state of said second device.

11. (Original) The programmable element of claim 10, further comprising a sense latch coupled to a controlled electrode of said FET.

12. (Original) The programmable element of claim 10, wherein said sense latch changes state when said diode is programmed.

13. (Previously Amended) A programmable element, comprising a programming device comprised of a first integrated circuit element having a first dielectric breakdown voltage and a MOSFET gain device comprised of a second integrated circuit element having a second dielectric breakdown voltage higher than said first dielectric breakdown

BUR920010181US1

5

Serial Number: BUR920010181US1

voltage, said first and second integrated circuit elements each having at least one electrode, said electrodes being electrically coupled together and to a source of programming energy, said second integrated circuit element conducting current when the first integrated circuit element has been programmed.

14. (Original) The programmable element of claim 12, wherein said source of programming energy renders said first integrated circuit element permanently conductive when programmed, without rendering said second integrated circuit element permanently conductive.

15. (Previously Amended) A programmable element, comprising a programming device comprised of a first integrated circuit element having a first dielectric breakdown voltage and a gain device comprised of a second integrated circuit element having a second dielectric breakdown voltage higher than said first dielectric breakdown voltage, said first and second integrated circuit elements each having at least one electrode, said electrodes being electrically coupled together and to a source of programming energy wherein said first integrated circuit element comprises a diffused electrode that is coupled to said source of programming energy and said second integrated circuit element conducting current when the first integrated circuit element has been programmed.

16. (Original) The programmable element of claim 14, wherein said first integrated circuit element comprises a conductive electrode comprised of a plurality of separate

BUR920010181US1

6

Serial Number: BUR920010181US1

conductive lines disposed above said diffused electrode and separated therefrom by an insulator.

17. (Amended) The programmable element of claim 15, wherein said first integrated circuit element comprises a diode an antifuse and said second integrated circuit element comprises an FET.

18. (Previously canceled)

19. (Previously canceled)

20. (Previously canceled)

21. (Previously canceled)

22. (Previously canceled)

23. (Previously canceled)

24. (Previously canceled)

25. (Previously canceled)

BUR920010181US1

7

Serial Number: BUR920010181US1

26. (Previously canc led)

27. (Previously canceled)

28. (Previously canceled)

29. (Previously canceled)